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Originals

Dalbergia (Leguminosae) of Sulawesi, Indonesia

Bambang SUNARNO[a] and Hiroyoshi OHASHI[b]

[a]Herbarium Bogoriense, Bogor, INDONESIA;
[b]Biological Institute, Graduate School of Science, Tohoku University, Sendai, 980-77 JAPAN

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Seven species of *Dalbergia* are recognized from Sulawesi (= Celebes), Indonesia, i.e., *D. candenatensis* (Dennst.) Prain, *D. discolor* Bl. ex Miq., *D. ferruginea* Roxb., *D. mimosella* (Blanco) Prain, *D. pinnata* (Lour.) Prain, *D. rostrata* Hassk., and a new species, *D. teijsmannii* Sunarno & H. Ohashi. *Dalbergia teijsmannii* is close to *D. beccarii* Prain of Borneo, but differs in leaflets, inflorescences and flowers, and is readily distinguishable from the other Sulawesi species by its smaller leaflets and very small flowers. *Dalbergia simplicifolia* Merr. and *D. subalternifolia* (Elmer) Merr. are reduced into *D. rostrata*. Previously recorded *Dalbergia parviflora* Roxb. is excluded from Sulawesi. A key to the species, the correct name for each species with its synonyms and bibliography, distribution, habitat and ecology, vernacular names, taxonomic notes and a list of specimens examined are presented.

Dalbergia of Celebes (= Sulawesi in Indonesia) was studied only by Prain (1904). He recognized six species. They are *D. discolor, D. ferruginea, D. minahassae, D. parviflora, D. rostrata*, and *D. torta*. Among them, *D. parviflora* Roxb. was recorded on the basis of misidentification of a specimen, Zollinger s. n. (BM), of *D. discolor* which is common in Sulawesi. *Dalbergia minahassae* recorded by Prain is identical with *D. mimosella*, and *D. torta* in Prain is *D. candenatensis*. The present study adds two species; one new species, *D. teijsmannii*, and one newly recorded species, *D. pinnata*. At present, therefore, seven species of *Dalbergia* are recognized in Sulawesi, i.e., *D. candenatensis* (Dennst.) Prain, *D. discolor* Bl. ex Miq., *D. ferruginea* Roxb., *D. mimosella* (Blanco) Prain, *D. pinnata* (Lour.) Prain, *D. rostrata* Hassk., and a new species, *D. teijsmannii* Sunarno & H. Ohashi.

In the list below, most of names of taxa are listed with their type, but the type we have not examined is indicated as n. v. (= not examined). Distribution in Sulawesi is shown for each species in Fig. 1.

Key to the species of *Dalbergia* in Sulawesi

1. Tree, branches spreading to form a flat crown ....4. *D. mimosella*
1. Shrub or woody climbers 2
  2. Leaflets 9–25, 5–20(–45) mm long.................3
  2. Leaflets (1–)3–9(–11), 20–150 mm long........5
    3. Leaflets oblong, herbaceous, lateral ones equal at base, apex rounded; secondary veins inconspicuous ....7. *D. teijsmannii*
    3. Leaflets oblong, ovate, elliptic-oblong or narrowly oblong, lateral ones oblique at base, apex emarginate; secondary veins conspicuous....4
      4. Stipules narrowly ovate to lanceolate, acuminate at apex. Leaflets mucronulate at apex, lateral nerves 6–7 pairs. Pods samaroid, re-

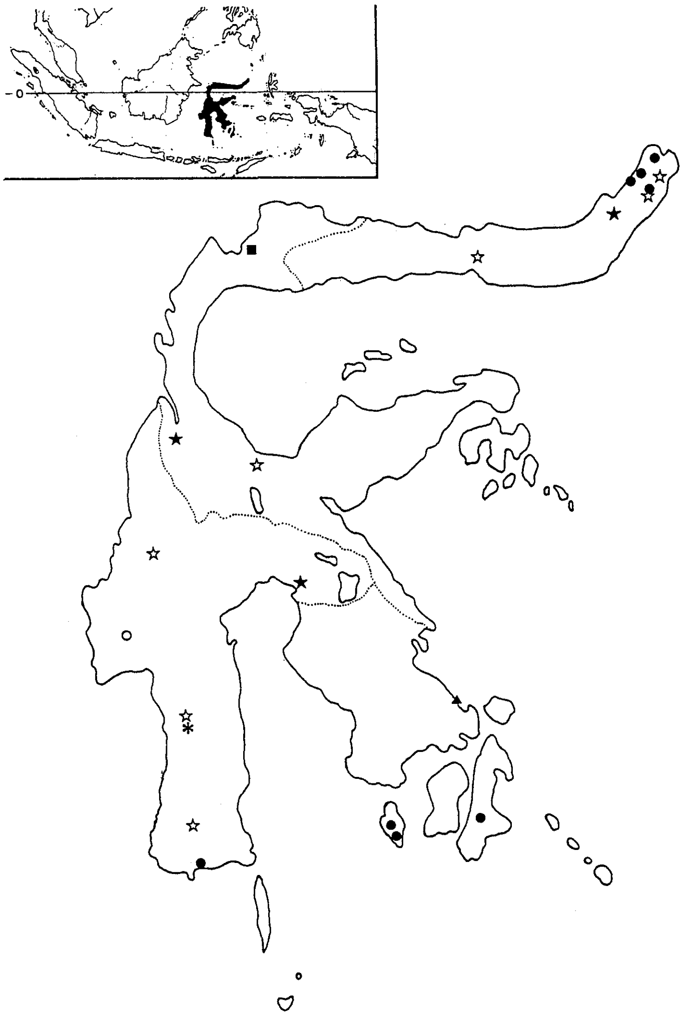

Fig. 1. Distribution of *Dalbergia* in Sulawesi. *D. candenatensis* (▲), *D. discolor* (☆), *D. ferruginea* (●), *D. mimosella* (○), *D. pinnata* (★), *D. rostrata* (■), and *D. teijsmannii* (✱).

ticulation obvious .... 5. *D. pinnata*

4. Stipules broadly ovate or slightly falcate, rounded at apex. Leaflets not mucronulate at apex, lateral nerves 7–10 pairs. Pods not samaroid (partly thickened and blackish opposite the seeds), reticulation obscure .... 3. *D. ferruginea*
   5. Terminal leaflets obovate; lateral nerves 4–6 pairs. Pods entirely thickened, falcate. Usually in the vicinity of mangrove or in the bank of tidal river .... 1. *D. candenatensis*
   5. Terminal leaflets broadly obovate, suborbicular or oblong, lateral nerves 7–9 pairs. Pods samaroid. Usually in lowland or hill forests 6
      6. Leaflets mostly (1–)3(–5), terminal ones oblong or ovate, sometimes elliptic, rostrate at apex, upper surfaces glabrous and blackish when dry. Pods ligulate or oblong, sparsely adpressed puberulent .... 6. *D. rostrata*
      6. Leaflets (5–)7–9(–11), terminal ones

suborbicular or broadly obovate, emarginate at apex, upper surfaces densely puberulous along midrib and bright brown when dry. Pods broadly oblong to suborbicular, reticulation distinct, glabrous .... 2. *D. discolor*

1. **Dalbergia candenatensis** (Dennst.) Prain in J. Asiat. Soc. Beng. **70** (2): 49 (1901); Merr., Enum. Phil. Fl. Pl. **2**: 294 (1923); Backer & Bakh. f., Fl. Jav. **1**: 614 (1963); Verdcourt, Man. New Guinea Leg. 295, fig. 65A–C (1979); Smith, Fl. Vit. Nova **3**: 157 (1985); T. C. Chen in Fl. Reipub. Popul. Sin. **40**: 107 (1994).

Cassia candenatensis Dennst., Schl. Hort. Malabar. 32 (1818). Type (n. v.): Malabar, Candenate (Rheede s.n.). According to Smith (1985), the type is Rheede, Hort. Ind. Malabar. 6: pl. 25.

Dalbergia monosperma Dalz. in Hook. J. Bot. **2**: 36 (1850). Type: East India, Malwan prov., Bombay (Dalzell s.n., Iso-: K).

Dalbergia torta Grah. [Wall. Cat. no. 5873 (1832), nom. nud.] ex Prain in Ann. Roy. Bot. Gard. Calc. **10**: 64, t. 42 (1904). Type (n. v.): Singapore (Wallich no. 5873, Lecto-: K-W: Isolecto-: BM).

Distribution: India to South China, through Malesia to North Australia; widely distributed in Malesia, from Malay Peninsula eastwards to New Guinea, Solomon Isl., New Caledonia and Fiji Island in the Pacific. The pericarp of pods is suberose in this species which can make seeds floating through the sea water and the seeds will be dispersed widely by currents.

Habitat and ecology: A woody climber 3–8 m high, common in mangrove forests, rocky beaches, river banks near the sea, at altitude 0–1 m. Flowers are white, flowering throughout the year, fruiting in February, July, September, October, and December.

Specimen examined: Prain (1904) cited a single specimen collected by Beccari in Lepo-Lepo near Kendari, South Sulawesi. No specimens from Sulawesi could be found in BM, BO, K, KEP, L, and OXF.

2. **Dalbergia discolor** Blume ex Miq., Fl. Ind. Bat. **1** (1): 130 (1855); Benth. in J. Linn. Soc. **4**, Suppl. 41 (1860); Prain in J. Asiat. Soc. Beng. **70** (2): 61 (1901), & in Ann. Roy Bot. Gard. Calc. **10**: 36, t. 10 (1904). Type: Borneo (Blume s.n., Holo-: L).

D. parviflora auct. non Roxb.: Prain in Ann. Roy Bot. Gard. Calc. **10**: 34 (1904), p. p., incl. Zollinger s.n. (BM).

Distribution: The species is rather abundant in Sulawesi, common to Borneo and very rare in the Philippines.

Habitat and ecology: A lowland forest liana. Usually climbing on tree by rivers in primary or secondary forests or in swampy forest areas at 3–400 m altitude. Flowering in March–October. Fruiting July–September. Barks are smooth and inner barks are pale yellow and soft with whitish sapwood.

Specimens examined: Sanhanvalu, Rumbia (Elberts 3059, L); Warubohasu, Rumbia (Elberts 3074); Maladi (Kjellberg 2038, BO); Nurka, Bero (Kjellberg 2196, BO); Around Opa swamp, S.E. Celebes (Prawiroatmodjo & Parwoko 1783, BO, L); Gn. Sopya (Rachmat 718, exped. v. Vuuren, BO, L); Gorontalo (Riedel s.n., K); Pangkadjene (Teijsmann 12539, BO).

3. **Dalbergia ferruginea** Roxb. [Hort. Beng. 98 (1814), nom. nud.] Fl. Ind. ed. 2, **3**: 228 (1832); Prain in Ann. Roy. Bot. Gard. Calc. **10**: 101, t. 86 (1904); Merr., Enum. Phil. Fl. Pl. **2**: 295 (1923); Verdcourt, Man. New Guinea Leg. 295 (1979). Type (n. v.): Malay island, uncertain loc. (perhaps Moluccas), fl. 1796 (Smith 225, Lecto-: BM).

D. elliptica Spanoghe in Comp. Bot. Mag. **1**: 346 (1835); in Linnaea **15**: 197 (1841). Typus (n. v.): Timor Isl. (Spanoghe s.n.).

D. luzonensis Vogel, Nov. Act. Ac. Nat. Cur. **19**. Suppl. **1**: 33 (1843). Type (n. v.): The Philippines, Luzon isl. (Meyen s.n.).

D. ferruginea var. *daronensis* Elmer, Leaflet Phil. Bot. **2**: 699 (1910). Typus: Philippines, Todaya (Mt. Apo), Davao district, Mindanao isl. (Elmer 11030, Iso-: BM, BO, K, L), syn. nov.

D. rivularis Merr. & Perry in J. Arn. Arb. **23**: 402 (1942). Type: West New Guinea, Benhard camp, Idenburg river (Brass 14080, Apr. 1939, Holo-: A; Iso-: K, L).

Distribution: Widely distributed in East Malesia: Sulawesi, Philippines, Borneo, eastwards to Papua New Guinea, Caroline isls. and to northern Queensland, Australia.

Habitat and ecology: This is a lowland forest species, found in beach forests, secondary or in disturbed primary forests. Usually associated with *Macaranga* species on path side or riverside, sometimes in hill sides of coral, at 1–400 m altitude. It grows well in limestone soils, yellow clay soils of bush savanna. Flowering almost throughout the year. Fruiting in January, February, May, September and December. Flowers and fruits are seen in the same plant at the same time.

Taxonomic notes: The species is apparently close to *D. stipulacea* Roxb. from continental Southeastern Asia, and has often been identified as *D. stipulacea.* However, they can be distinguished by inflorescences, stipules, fruits and seeds.

The type specimen of *D. ferruginea* var. *daroensis* Elmer is not distinct from those of the typical form.

Vernacular names: Oca-oca, metabibi (Sulawesi).

Specimens examined: Celebes (Forsten s.n. HLB. 908.114-1467, L); Kongkeong Rea, Buton Isl. (Elbert 2831, BO, K, L); Rumbia, Dooleh, in bush savanna (Elbert 3068, BO, L); Empulur, Balo, Kobaena isl. (Elbert 3294, BO, K, L); Mt. Klabat, Tasikoki, near Kemma (Foremann 408, BO, K, L); Peling, Tatabaoe (Kaudern 528, L); Menado (Koorders 17589; BO, K, L); Gn. Manipoe (Noerkas 179, BO); Kp. Lancah (Noerkas 193, BO, L); P. Selaroe, Adaoet, Tanimbar isl. (Pleyte 107, BO, K, L); Handure (Rachmat 636, BO); Kp. Kaseno (Rachmat 733, BO); Menado, Boleh Angien (Teijsmann 12459, HB, BO); Bontain (Teijsmann 13934, BO); P. Sengkang (Van der Vecht s.n., BO); Kobaena isl., Teohomote, Kobaena (Wijaya 699, BO, K).

4. **Dalbergia mimosella** (Blanco) Prain in Ann. Roy. Bot. Gard. Calc. **10**: 42 (1904); Merr., Enum. Phil. Fl. Pl. **2**: 295 (1923).

Amerimnon mimosella Blanco, Fl. Phil. ed. 1, 563 (1837); ed. 2, 393 (1845). Type (n. v.): Philippines, Tala, fl. & fr. (Blanco s.n.).

Dalbergia minahassae Koorders, Meded. Lands Plantent. **19**: 430, 630 (1898). Type: Celebes, Minahasa, fl. (Koorders 17701, Holo-: L (HLB. 921.83-44); Iso-: BO).

D. davaoensis Elmer, Leafl. Phil. Bot. **2** (40): 700 (1913). Type: Philippines, Mt. Apo, Todaya, Mindanao isl., fl. & young fr., May 1909 (Elmer 10551,: L; Iso-: BM, BO, K).

Distribution: North Sulawesi, Sumatra, Borneo, and Philippines.

Habitat and ecology: Frequent in primary or secondary forests along river bank or disturbed riverine forests, in 200–1200 m altitude. Flowering in January, April, May, June, July, October and November.

Field Notes: A small to a medium tree up to 25 m tall. A clear bole is up to 6 m or longer. Flowers are white, bluish white or pale lilac; pods are yellowish green and slightly streaked with a red around the seed.

Vernacular name: Tampulandang (Minahasa).

Taxonomic notes: The species is close to *D. lanceolaria* L. f., but differs in larger and thicker leaflets, larger flowers, and strap shaped of smoother pods. In East Java, a *Dalbergia* tree is well known among the foresters which is called "sono minasa" meaning *Dalbergia* from Minahasa. It is said to be imported from North Sulawesi by the Forestry Services. However, this species is *D. lanceolaria. Dalbergia mimosella* is actually a rare species, only a few specimen from Sulawesi could be examined, and as far as we know it never been cultivated neither in the Philippines nor Sulawesi. The cultivation of *D. lanceolaria* in East Java was perhaps originated from seeds distributed through Bogor Botanical Garden. As no historical records or document concerning to the imported seeds of *D. mimosella* from North Sulawesi to East Java for further evidence, we might retain that "sono minasa" is *D. lanceolaria.*

Specimens examined: Minahasa (Koorders 17701. Type of *D. minahassae*, BO, L); Mt. Rantepao (Rachmat 872, BO).

5. **Dalbergia pinnata** (Lour.) Prain in Ann. Roy. Soc. Bot. Gard. Calc. **10**: 48 (1904); Merr., Enum. Phil. Fl. Pl. **2**: 296 (1923); Backer & Bakh. f., Fl. Jav. **1**: 614 (1963); Ohashi in Hara & al., Enum. Fl. Pl. Nepal **2**: 114 (1979); T. C. Chen in Fl. Reipub. Popul. Sin. **40**: 101 (1994).

Derris pinnata Loureiro, Fl. Cochinch. 432 (1790). Type: Cochinchina, in forest, fl. (Loureiro s.n., BM).

Endespermum scandens Blume, Cat. Gew. Buit. 92 (1823), & in Flora **8** (1): 132 (1825).

Dalbergia tamarindifolia Roxb. [Hort. Beng. 53 (1814), nom. nud.] Fl. Ind. ed. 2, **3**: 233 (1832); Prain in Ann. Roy. Bot. Gard. Calc. **10**: 69, t. 48 (1904). Type (n. v.): Indochina, Silhet (M. R. Smith s.n.).

Dalbergia blumei Hasskarl, Cat. Hort. Buit. 284 (1844), Pl. Jav. Rar. 400 (1848). Type: Cultivated in Hort. Buitenzorg (Reinwardt s.n. Iso-: BO).

Dalbergia pinnata var. *badia* Merr. in Phil. J. Sci. Bot. **5**: 96 (1910), Enum. Phil. Pl. **2**: 296 (1923). Type (n. v.): Philippine, Luzon isl., Prov. Tayabas, Pitogo (For. Bur. 9649, Curran).

Dalbergia dubia Elmer, Leafl. Phil. Bot. **8** (115): 731 (1915). Type: Philippine, Mindanao Isl., Cadbadbaran (Mt. Urdaneta), Prov. Agusan, at 1000 m alt. (Elmer 13733, Holo-: L; Iso-: BM, BO, K).

Dalbergia pinatubensis Elmer, Leafl. Phil. Bot. **9** (124): 3148 (1924). Type: Philippine, Luzon isl., Prov. Pampanga, Camp Stotsenburg, Mt. Pinatubo, Zambalas Mts. (Elmer 22094, Holo-: L; Iso-: BO, K).

Distribution: Malesia: Borneo, Java, Peninsular Malay, Philippines, Sulawesi, and Sumatra, India to southern China.

Habitat and ecology: An erect or scandent shrub, sometimes looks like a small tree or a strong woody climber up to 20 m high, occurs from the sea level up to 1700 m altitude. The plant is commonly found on edge of sandy beaches or mangrove swampy areas, in swampy forests, in primary and secondary forests, fringe vegetation and often common in thickets or brush woods along the road. It grows well in sandy soils, limestone bedrock or dry gravel country.

Pedicels green, flowers pale greenish white, yellowish green or creamy white. Calyx pale green, stamens bright yellow, pistil yellow. Flowering almost throughout the year, fruiting often intermixed with flowering. Outer bark grayish dark purplish, becoming brown purplish upwards, lenticels small and smooth but quite dense. Inner bark brownish, sapwood whitish, heartwood flowing a reddish dark liquids, darker than fluids from *Dalbergia velutina*.

Specimens examined: Celebes. Limbang, Minahasa (Hose 769, BM, K, L); Malili (Kjellbergh 2038, K); Area of Bayangan near Palu, (Meijer 10205, BO, L).

6. **Dalbergia rostrata** Hassk., Flora **25**, Beibl. **2**: 53 (1842); Backer & Bakh. f., Fl. Jav. **1**: 615 (1963); Verdcourt, Man. New Guin. Leg. 296 (1979). Type: Java. Bantam, Tjiriengien (Tjicariengien) (Hasskarl s.n.- HLB. 908.114-1385, L).

Dalbergia championi Thwaites, Enum. Pl. Zeyl. 39 (1859). Type: Ceylon, Hantam, fl. Apr. 1846 (Thwaites 761, Holo-: K; Iso-: BO).

Derris subalternifolia Elmer, Phil. Leafl. Bot. **5**: 1801 (1913). Type: Philippine: Palawan Isl., fl. Apr. 1911 (Elmer 12965, Holo-: L; Iso-: K, BO), syn. nov.

Dalbergia subalternifolia (Elmer) Merr. in Phil. J. Sci. Bot. **10**: 14 (1915); Enum. Phil. Fl. Pl. **2**: 296 (1923), syn. nov.

Dalbergia simplicifolia Merr. in Phil. J. Sci. Bot. **11**: 87 (1916). Type: Borneo, Sarawak, Miri, fl. Apr. 1895 (Hose 678, Holo-: L; Iso-: BM, BO, K), syn. nov.

Dalbergia rostrata Graham ex Prain in J. Asiat. Soc. Beng. **70**: 45 (1901), & in Ann. Roy. Bot. Gard. Calc. **10**: 60 (1904), non Hassk. Type (n. v.): Singapore 1822 (Wallich no. 5867, K, W).

Dalbergia pseudosissoo Miq., Fl. Ind. Bat. **1**: 128 (1855), nom. illeg. Type: Java; Bantam, Tjiriengien (Tjicariengien) (Hasskarl s.n.- HLB.908.114-1385).

Distribution: The species is widely distributed in West to East Malesia except New Guinea. Ceylon and perhaps Thailand and Cambodia.

Habitat and ecology: A liana up to 30 m high occurs in lowland to hill, sometimes maintain forests. Frequent in primary and secondary forests, in mixed *Dipterocarp* forests, sago swamp forest, lowland rain forests or rarely in open places, from the sea level up to 1200 m altitude. Flowering almost through the year. Some plants exhibit flowers while mature pods still hang on. Inflorescence-axes and calyx are green, flowers are white or yellowish green to creamy, sometimes with red spots towards the apex, and stamens are yellow or bright red. Outer barks are grayish brown becoming brown upwards. The light brown lenticels more conspicuous than *D. junghuhnii*. Inner barks are brownish with whitish sapwood and a reddish brown liquid from the heartwood.

Specimen examined: Celebes: Tolili (Kjellberg 4159, BO).

7. **Dalbergia teijsmannii** Sunarno & H. Ohashi, sp. nov. (Fig. 2).

Species haec ab *Dalbergio beccarii* differt stipulis persistentibus lanceolatis, foliolis oblongis integerris obscuris nervatis lateralibus, inflorescentiis paniculatis, floribus minoribus.

Type: Celebes, Pangkajene, on rocky areas (Teijsmann 12287HB, Holo-: BO, Iso-: BO).

Erect shrub (?), young branches inconspicuously glabrous or sparsely to rather densely puberulent, wrinkled, more or less striate and becoming entirely glabrous, striate and lenticellate when old.

Stipules persistent, narrowly ovate to lanceolate, 4–5 by ca. 1 mm large, entirely glabrous or sparsely puberulent in the margin, conspicuously longitudinally veined. Leaves 3–8 cm long; petioles 0.7–2 cm long, sparsely puberulent; rachis 2.5–6.0 cm long, densely puberulent. Leaflets 9–17, oblong, 1.2–1.5 by 0.4–0.5 cm large, herbaceous to thinly chartaceous; upper surface dark green to blackish brown when dry, apparently glabrous; lower surface paler, densely adpressed pubescent; midrib inconspicuous, main lateral nerves obscure; base obtuse to rounded; apex rounded, entire; petiolules 0.5–1.0 mm long, densely puberulent.

Inflorescences axillary panicles, 2.5–5.0 cm long; peduncles 0.5–0.2 cm long, sparsely to rather densely brown pubescent; rachis 2–3 (–4) cm long, sparsely to rather densely brown puberulent; bracts subpersistent, triangular ovate, ca. 0.5 mm long, densely brown puberulent; bracts subpersistent, triangular ovate, ca. 0.5 mm long, densely brown puberulent; bracteoles persistent, ca. 0.75 by 0.25 mm large, densely brown puberulent. Flowers 3 mm long (including calyx length); pedicels slender, 1–2 mm long, sparsely puberulent. Calyx bell-shaped, sparsely puberulent, tube 1–1.2 mm long; the lowest lobe acuminate, ca. 1.5 mm long. Standard erected or very slightly refracted; blades broadly obovate, ca. 2.5 by ca. 2.5 mm; base hastate; apex rounded, emarginate, reticulately veined; claw ca. 0.5 mm long. Wing blades oblong, 1.8–2.3 by ca. 1.0 mm large; base acute on one side, obtuse on the other; apex rounded; claw ca. 0.3 mm long. Keel blades broadly obovate, 1.5–0.2 by 1.0–1.2 mm; base obtuse to acute on one side, obtuse to rounded on the other; apex rounded; claw 0.3–0.4 mm long, the upper edge united. Stamens 10, monadelphous, the united filaments ca. 1 mm long, upper free one alternately 0.5 mm and ca. 1.0 mm long. Pistil 1.5–1.6 mm long, entirely glabrous; stipe ca. 0.4 mm long; style ca. 0.2 mm long; stigma small; ovules 1–2. Pods not seen.

Ecology and distribution: Known only the type specimen.

Taxonomic notes: The species was misidentified by Teijsmann as a member of Meliaceae. Sectioning of the flowers undoubtedly shows the globular characteristics of the anthers with its transverse slits which corresponds to the genus *Dalbergia*. No pods could be observed from both specimens, but the vegetative and the floral characters are closely related to *D. beccarii* Prain. Both species have in common 9–17-foliolate leaves of which the leaflets are 5–15 mm long and 2–6 mm wide, and small flowers of which the calyces are

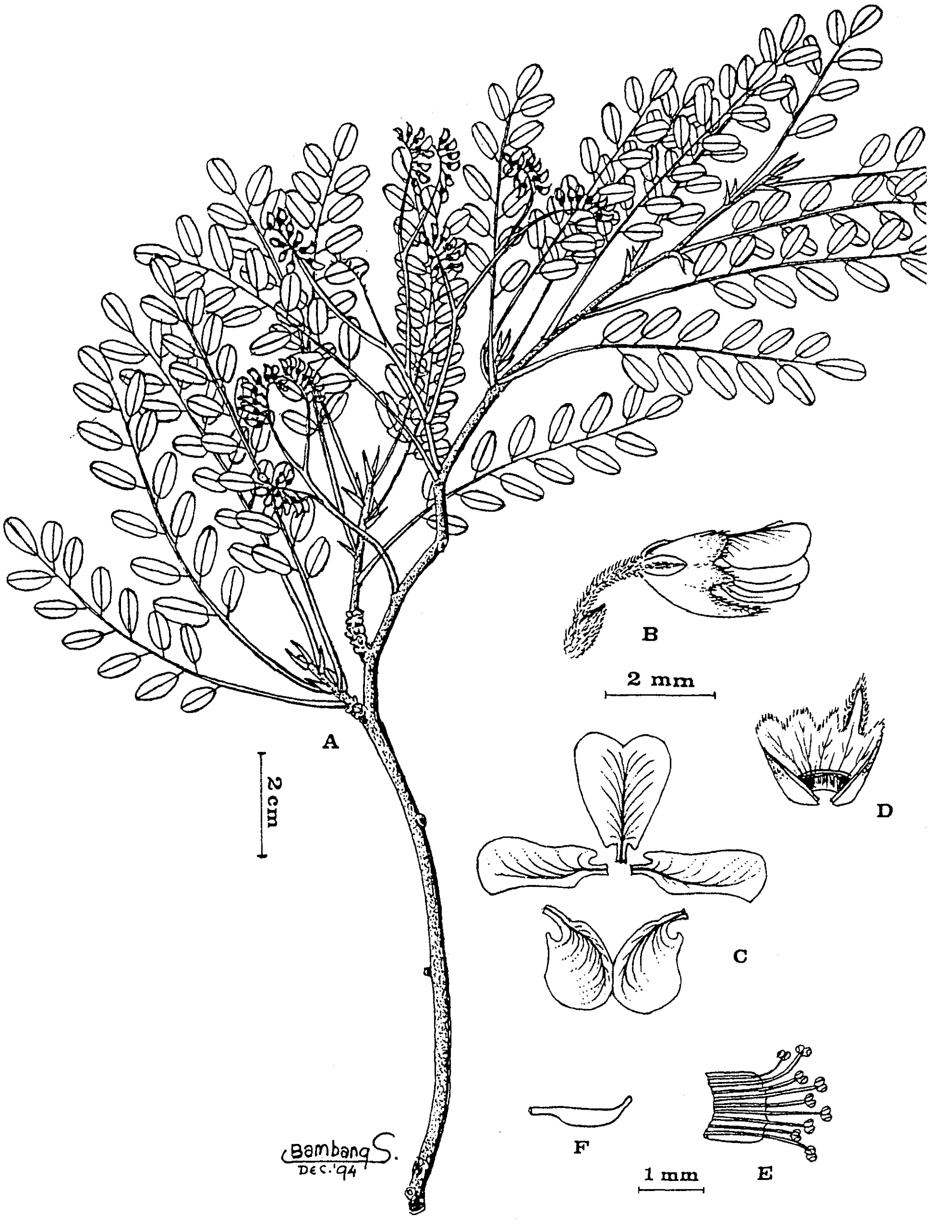

Fig. 2. *Dalbergia teijsmannii* Sunarno & H. Ohashi. A. Flowering branch, B. Flower, C. Petals, D. Calyx opened, E. Stamens, F. Pistil.

2–3 mm long and the standard are emarginate at apex.

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Table 1. Difference between *Dalbergia beccari* and *D. teijsmannii*

Characters/species	*D. beccarii*	*D. teijsmannii*
Stipules	caducous, broadly falcate, apex acuminate	persistent, lanceolate, apex acute
Leaflets	broadly oblong, apex emarginate or retuse, lateral nerves 4–6 pairs	oblong, apex entire, lateral nerves not visible
Inflorescences	cymose	paniculate
Bracteoles	caducous or subpersistent	persistent
Flowers:	3–3.5(–4) mm long	ca. 3 mm long
Calyx	lowest teeth acute or acuminate, ca. 1 mm long	lowest teeth acuminate, ca. 1.5 mm long
Standard	broadly ovate, claw 0.2–0.3 mm long	broadly obovate, claw ca. 0.5 mm long
Pistil	ovary sparsely hairy but densely so at the lower suture	ovary entirely glabrous

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References

Prain D. 1904. The species of *Dalbergia* of Southeastern Asia. Ann. Roy. Bot. Gard. Calc. **10**: 1–114, pls. 1–91.

B. スナルノ・大橋広好: **インドネシア，スラウェシ島のマメ科ツルサイカチ属**

インドネシア，スラウェシ島は旧くはセレベス島と呼ばれた．マレーシア地域の中でフロラの解明が最もおくれている島の1つである．マメ科についてもこの島の種類についてはほとんど断片的な情報があるのみで，今後の研究が待たれている．また，本論文で対象としたマメ科ツルサイカチ属は世界の熱帯を中心に約100種が分布すると見積もられているが，マメ科の中でも研究の遅れている属の1つである．これまで，スラウェシ島のツルサイカチ属については，Prain（1904）の研究があるのみであった．Prainは6種を報告した．今回，おもにBM，BO，K，Lの所蔵標本を調べた結果，7種を認めることができた．このうち，Prainの報告とは3種が共通し，1種は新種，1種は新分布記録，2種は種の扱いが変更された．

([a]インドネシア・ボゴール標本館，
[b]東北大学大学院理学研究科生物学教室)